ABSTRACT

The present invention is an enhancement of the render, match, and refine (RMR) method [0002] for scene model refinement. It provides a means of automatically subdividing the RMR problem such that the matching can operate on subsets of the 2D view plane, and refinement can operate on subsets of the scene model parameters with little interference between parameter subsets. Since run times of high-dimensional searches tend to scale exponentially with the number of dependent parameters and linearly with the number of independent parameters, this can vastly reduce the number RMR iterations required to achieve convergence.